

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ZHANBING WU, GANESH PANDEY, AMANDA NGUYEN  
PETER WONG, ALVIN SCHOLTEN and EIGO SHIMIZU

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Appeal No. 2003-0237  
Application No. 09/157,895

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ON BRIEF

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Before BARRETT, OWENS, and SAADAT, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This appeal is from the final rejection of claims 1-4 and 6-22. Claim 5, which is the only other pending claim, has been allowed.

*THE INVENTION*

The appellants claim a computer system and computer-readable medium having a text based minidriver, a method for characterizing a printer device using a text based minidriver, and a method for modifying a text based minidriver characterizing

a printer device. Claim 1, directed toward the computer system, is illustrative:

1. A computer system for outputting data to an output device, comprising:

an application program for invoking a plurality of graphics device interface functions to control the sending of data to the output device;

a graphics device interface for invoking a plurality of device driver functions for controlling the outputting of data in response to the invocation of the plurality of graphics device interface functions;

a text based minidriver containing a text based characterization of the output device, the text based characterization containing an implementation of device specific device driver functions invoked by the graphic device interface, the text based minidriver including means for outputting the text based characterization; and

a modular universal driver which incorporates the text based characterization passed by the text based minidriver, the modular universal driver implementing the device specific driver functions to control the outputting of data to the output device in accordance with the incorporated text based characterization.

#### *THE REFERENCES*

Shaw et al. (Shaw)	5,604,843	Feb. 18, 1997
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Millman et al. (Millman)	5,619,635	Apr. 8, 1997
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#### *THE REJECTIONS*

The claims stand rejected as follows: claims 1-4 and 6-17 under 35 U.S.C. § 102(e) as anticipated by Shaw, and claims 18-22 under 35 U.S.C. § 103 as obvious over Shaw in view of Millman.

*OPINION*

We reverse the aforementioned rejections. We need to address only the independent claims, i.e., claims 1, 11, 18 and 20.

*Claims 1 and 11*

The appellants' claims 1 and 11 require that a minidriver contains a text based characterization of an output device. It is proper to use the specification to interpret what the appellants mean by a word or phrase, such as "text based", in a claim. See *In re Morris*, 127 F.3d 1048, 1053-56, 44 USPQ2d 1023, 1027-30 (Fed. Cir. 1997). The specification indicates that by "text based" the appellants mean that the minidriver characterizes the output device using human-readable text characters that have not been compiled into binary format (page 3, line 26 - page 4, line 10; page 5, lines 12-13; page 6, lines 16-18; page 69, lines 10-11; page 70, lines 3-5; page 71, lines 2-11).

Shaw discloses minidrivers (203) and a universal driver (UniDriver 204, figure 2). "In a preferred embodiment, each device driver function of the minidriver implementation (except for an initialization function) forwards its invocation to an

analogous device driver function implemented by the universal driver" (col. 4, lines 4-8).

The appellants have submitted a declaration by Zhanbing Wu (filed September 14, 2001, paper no. 8), who is a co-inventor of the Shaw system and the present system, wherein Wu states:

6. Unlike the system of Shaw, et al. '843 that requires the printer manufacturers to develop the binary printer characterization, the system of the present application allows the use of text based minidrivers that have text based characterizations of the printers. The modular universal driver then incorporates this text based characterization and implements the device specific driver functions in accordance with the incorporated text based characterization. The modular nature of the universal driver, and in particular the inclusion of the parser module illustrated in FIG. 6 of the present application, is what allows the use of the text based characterization. Specifically, the parser module of the modular universal driver parses the text based characterization of the printer to derive the internal binary data structures. The parser is called only once when the printer is installed. After that, the universal driver accesses the cached binary data structures unless the text based characterization has since been updated.

7. The UniDriver of Shaw, et al. '843 is not modular and cannot parse a text file to derive the binary data structures. This is why the minidrivers of Shaw, et al. '843 must be binary to start with. Because the system of the present application utilizes a modular universal driver, the minidrivers may be simply text based and may have text based characterizations of the printer. The modular universal driver can then simply parse the text file to derive the internal binary data structures via one of its modules (the parser module in a preferred embodiment).

In response to the Wu declaration, the examiner argues that Shaw's disclosure does not include the word "binary" (answer, page 8). The examiner, however, has not provided evidence that the interpretation of the Shaw disclosure by Wu, who is a co-inventor of the Shaw system, is incorrect.

The examiner argues (answer, page 3) that Shaw discloses a text based minidriver (203 in fig. 2) containing a text based characterization of the output device (col. 4, lines 1-4, 38-40, 50-51, 60-64, and note: printer characterization data includes device data and font data, and the type of device characterization data indicates the type of printer which can handle the type of text data, which is described in col. 7, lines 48-51 and 54-60), the text based characterization containing an implementation of device specific device driver functions invoked by the graphic device interface, the text based minidriver including means for outputting the text based characterization (col. 4, lines 2-4 and 13-16 and 38-42).

The examiner further argues (answer, page 10):

With respect to the broad limitation of: "a minidriver having a text-based characterization of the output device", Shaw clearly discloses that each minidriver have a characterization of the output device (col. 4, lines 1-4). The references, which is made to printer characterization data as a specific example of device characterization data (col. 4, lines 45-47), includes font data (i.e., type of character of text data, col. 4, lines 50-51 and 60-64). The type of device characterization data indicates the type of printer, which can handle the type of text data (col. 7, lines 46-51). The handle of the minidriver data contains a reference, including text data, to the generic printer characterization data (col. 7, lines 54-60). Therefore, the minidriver of Shaw

contains the "text-based characterization" of output device and meets the broad claim limitation.

The portions of Shaw relied upon by the examiner disclose that the minidriver contains data characterizing the output device, but do not disclose that the characterization is text based. The examiner's argument indicates that Shaw discloses a "text based minidriver", "text based characterization" and "text data", but those disclosures are not in the reference.

We therefore find that the examiner has not carried the burden of establishing a *prima facie* case of anticipation of the inventions claimed in the appellants' claims 1 and 11. Accordingly, we reverse the rejection of these claims and claims 2-4, 6-10 and 12-17 that depend therefrom.

*Claims 18 and 20*

The appellants' claim 18 requires creating, using a text editor, a text based minidriver containing a text based characterization of a printer device, and claim 20 requires opening a minidriver in a text editor, modifying the minidriver, and saving the minidriver in the text editor.

Millman discloses a system for designing complex, graphics-based forms and then generating control specifications for producing the forms on a production scale basis (col. 1, lines 12-16). The portion of Millman (col. 5, lines 44-60;

figure 4) relied upon by the examiner (answer, page 6) describes a block flowchart of an edit subsystem that "describes the logic associated with the interactive generation of a specific form design and form specification" (col. 5, lines 35-37). Millman discloses:

[T]he Edit subsystem creates the environment that permits the rapid entry of selected form attributes and the interactive review of a generated form on a display screen by the user. In addition, certain device configurations, e.g., the printer, are selected and stored in memory in conjunction with the form file.  
[col. 5, lines 37-42]

\* \* \*

The final subroutine depicted in FIG. 4 is directed to modifying the print driver, test **470** and the options pertaining thereto, block **480**. [col. 5, lines 57-59]

The examiner argues (answer, pages 6-7):

It would have been obvious to have modified the printing system of Shaw by using the text editor to create or modify a text based DLL [dynamic link library] with new features in a software program of print driver as taught by Millman. The suggestion of modifying the system of Shaw can be reasoned by one of ordinary skill in the art as set forth by Millman because Millman teaches a data processing apparatus that supports the engineering of complex forms on an interactive basis wherein the user selectively enters form constraint information in an iterative fashion. The embedded values are associated with industry standard form parameters defining the appropriate attributes. This dramatically reduces the errors associated with forms during and after final productions.

The examiner further argues that "Millman teaches the step of creating a print driver using the text editor for modifying

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and/or installing the print driver (fig. 4 and col. 5, lines 44-60)" (answer, page 13).

The examiner relies upon Millman for a disclosure of a text editor, but the portion of Millman cited by the examiner does not disclose that the editor used to modify the print driver is a text editor. Also, the examiner has not explained how Millman would have fairly suggested a text editor to one of ordinary skill in the art. Furthermore, as discussed above regarding the rejection of claims 1 and 11, the examiner relies upon Shaw for a disclosure of a text based minidriver, but the examiner has not pointed out where a text based minidriver is disclosed by Shaw. Nor has the examiner explained how Shaw would have fairly suggested a text based minidriver to one of ordinary skill in the art. Thus, the examiner clearly has not established that the applied references would have fairly suggested, to one of ordinary skill in the art, using a text editor to create or modify a text based minidriver.

Accordingly, we reverse the rejection of claims 18 and 20 and claims 19, 21 and 22 that depend therefrom.



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*DECISION*

The rejections of claims 1-4 and 6-17 under 35 U.S.C.  
§ 102(e) over Shaw, and claims 18-22 under 35 U.S.C. § 103 over  
Shaw in view of Millman, are reversed.

*REVERSED*

Lee E. Barrett	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
Terry J. Owens	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
Mahshid D. Saadat	)	
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TJO/eld

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